method, given in the appendix to M. De Moivre's *Miſcellanea Analytica*, it may be transformed to another, converging quicker; which method is applied to this very ſeries, in folio 362 of the *Mathematical Repoſitory*, Vol. I.

XLI. *A Letter from* John Lining, *M. D. of* Charles-Town, South-Carolina, *to the Rev.* Thomas Birch, *D. D. Secr. R. S. concerning the Quantity of Rain fallen there from* January 1738, *to* December 1752.

Rev. Sir, South Carolina, Charles-Town, April 9, 1753.

Read July 8, 1753.

THE favourable reception, which my former papers met with from the Royal Society, encourages me to ſend you a table of the quantity of rain, which fell in Charles-Town for theſe 15 years laſt paſt; which, if continued for half a century, might be of uſe, in diſcovering to us the changes made in a climate, by clearing the land of its woods. Tho' I formerly ſent a table of the rain from 1738 to 1745 incluſive, which is publiſh'd in N° 487 of the *Philoſophical Tranſactions*; yet, as I thought it would be more convenient to bring the whole into one view, I have not only added to this table the rain of thoſe years, but have likewiſe diſtinguiſhed the quantity which fell in the ſeveral ſeaſons. In this table I continued the old ſtile to the firſt of laſt February, that the mean quantity, in each month, and in the different ſeaſons, might be given exactly.

As

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A TABLE of the Depth of Rain, in Inches and milleſimal Part

	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748
January	1.097	2.310	4.875	4.492	2.189	3.172	1.994	0.863	1.144	3.429	2.112
February	4.416	2.875	3.084	4.615	1.650	2.435	3.063	7.739	2.701	2.860	1.573
March	4.532	5.609	1.141	5.713	5.203	0.621	0.582	3.229	1.628	2.585	3.047
April	1.082	0.195	1.092	1.308	0.918	5.292	2.866	3.842	1.128	0.292	0.979
May	3.127	5.120	5.612	4.841	5.898	2.535	2.871	1.832	3.988	0.924	1.826
June	1.567	15.839	4.648	5.538	3.250	1.903	5.814	9.510	4.109	2.470	1.859
July	10.660	5.452	3.013	3.399	1.252	7.738	8.437	6.771	9.895	6.413	9.273
Auguſt	4.104	12.211	7.301	7.144	7.647	3.767	4.202	9.339	6.114	4.895	6.881
September	10.792	4.834	3.200	6.734	2.895	4.686	5.657	0.754	0.932	7.216	7.442
October	1.358	6.593	1.358	3.399	0.759	1.672	1.595	2.962	0.506	9.504	5.550
November	2.656	1.235	1.848	2.964	3.388	3.220	1.562	0.682	3.586	1.056	5.368
December	3.877	3.689	2.736	1.919	0.957	2.706	9.680	2.623	3.916	2.921	5.588
Spring	10.030	8.679	5.317	11.636	7.771	8.348	6.511	14.810	5.457	5.737	5.599
Summer	15.354	26.411	13.273	13.778	10.400	12.176	17.122	18.113	17.992	9.807	12.958
Autumn	16.254	23.638	11.759	17.277	11.301	10.125	11.454	13.055	7.552	21.615	19.873
Winter	8.843	9.797	9.076	7.072	7.517	7.920	12.105	4.449	10.931	6.089	12.012
Total Depth	49.926	65.962	65.962	52.086	36.006	39.747	48.323	50.146	39.653	44.565	51.498

The Depth of Rain in January 1753, O. S. was 2.

Place this between p. 284, 285.

l Parts, which fell in Charles-Town.

1748	1749	1750	1751	1752	Greateſt	Leaſt	The Means
2.112	1.056	2.563	None	3.597	4.873		2.326
1.573	4.516	3.135	5.374	3.798	7.739	0.798	3.389
3.047	7.475	0.943	1.342	1.716	7.475	0.621	3.024
0.979	1.760	2.310	2.310	0.440	5.292	0.195	1.721
1.826	5.555	2.371	5.533	2.794	5.898	1.826	3.655
1.859	4.686	8.690	2.462	2.618	15.839	1.567	5.000
9.273	6.219	5.687	6.544	1.485	10.660	1.252	6.140
6.881	11.124	5.346	12.144	10.725	12.211	3.767	7.530
7.442	1.298	12.370	11.671	14.663	14.663	0.754	6.34
5.550	3.900	5.000	0.352	1.199	9.504	0.352	3.040
5.368	1.238	3.137	0.682	0.814	5.368	0.682	2.220
5.588	5.594	4.609	2.409	2.035	9.680	0.957	3.684
5.599	13.751	6.388	9.026	2.954	14.810	2.954	8.068
12.958	16.460	16.748	14.569	6.897	26.411	6.897	14.804
19.873	16.322	22.716	24.167	26.587	26.587	7.552	16.913
12.012	9.355	7.744	6.688	5.456	12.105	4.449	8.340
51.498	54.421	56.159	50.853	42.884	65.962	36.006	48.023

was 2.607 inches.

XLII.

As we have many thunder-guſts in the hot months, in which a vaſt quantity of rain falls, the depth of the rain, in theſe months, is thereby greatly increaſed; for then we have very little rain, excepting in thunder-ſhowers.

On the 30 of June, 1750, in a thunder-ſtorm, there fell, in two hours, 5.335 inches of rain.

On the 16 of September, 1751, there fell, in 24 hours (but the greateſt part in 6 hours) 9.955 inches of rain.

On the 15 of September, 1752, during the time of the moſt violent hurricane, that was ever felt in this town, the depth of rain, which fell, was only 3.740 inches, and the greateſt part of that was the ſpray of the ſea.

From the 17 Sept. 1751, to the 7 Auguſt 1752, was the drieſt ſeaſon ever known in this province.

Since I ſent an abſtract of my meteorological tables to the Royal Society, I have ſeen Fahrenheit's thermometer in the ſhade once down at the 10 degree; and once laſt ſummer it roſe to the 100 degree. I am,

S I R,

Your moſt humble ſervant,

John Lining.

A TABLE of the Depth of Rain, in Inches and milleſimal Parts, which fell in Charles-Town.

	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749	1750	1751	1752	Greateſt	Leaſt	The Means
January	1.097	2.310	4.875	4.412	2.189	3.172	1.994	0.863	1.144	3.429	2.112	1.056	2.563	None	3.597	4 873		2.326
February	4.416	2.875	3.084	4.615	1.650	2.435	3.063	7.739	2.701	2.860	1.573	4.516	3.135	5.374	3.798	7.739	0.798	3.389
March	4 532	5.609	1.141	5.713	5.203	0.621	0.582	3.229	1.628	2.585	3.047	7.475	0.943	1.342	1.716	7.475	0.621	3.024
April	1.082	0.195	1.092	1.308	0.918	5.292	2.866	3.842	1.128	0.292	0.979	1.760	2.310	2.310	0.440	5.292	0.195	1.721
May	3.127	5.120	5.612	4.841	5.898	2.535	2.871	1.832	3.988	0.924	1.826	5.555	2.371	5.533	2.794	5.898	1.826	3.655
June	1.567	15.839	4.648	5.538	3.250	1.903	5.814	9.510	4.109	2.470	1.859	4.686	8.690	2.462	2.618	15.839	1.567	5.00
July	10.660	5.452	3.013	3.399	1.252	7.738	8.437	6.771	9.895	6 413	9.273	6.219	5.687	6.544	1.485	10.660	1.252	6.14
Auguſt	4.104	12.211	7.301	7.144	7.647	3.767	4.202	9.339	6.114	4.895	6.881	11.124	5.346	12.144	10.725	12.211	3.767	7.53
September	10.792	4.834	3.200	6.734	2.895	4.686	5.657	0.754	0.932	7.216	7.442	1.298	12.370	11.671	14.663	14.663	0.754	6.34
October	1.358	6.593	1.358	3.399	0.759	1.672	1.595	2.962	0.506	9.504	5.550	3.900	5.000	0.352	1.199	9.504	0.352	3.04
November	2.656	1.235	1.848	2.964	3.388	3.220	1.562	0.682	3.586	1.056	5.368	1.238	3.137	0.682	0.814	5.368	0.682	2.22
December	3.877	3.689	2.736	1.919	0.957	2.706	9.680	2.623	3.916	2.921	5.588	5.594	4.609	2.409	2.035	9.680	0.957	3.684
Spring	10.030	8.679	5.317	11.636	7.771	8.348	6.511	14.810	5.457	5.737	5.599	13.751	6.388	9.026	2.954	14.810	2.954	8.068
Summer	15.354	26.411	13.273	13.778	10.400	12.176	17.122	18.113	17.992	9 807	12.958	16.460	16.748	14.569	6.897	26.411	6.897	14.804
Autumn	16.254	23.638	11.759	17.277	11.301	10.125	11.454	13.055	7.552	21.615	19.873	16.322	22.716	24.167	26.587	26.587	7.552	16.913
Winter	8.843	9.797	9.076	7.072	7.517	7.920	12.105	4.449	10.931	6.089	12.012	9.355	7.744	6.688	5.456	12.105	4.449	8.340
Total Depth	49.926	65.962	65.962	52.086	36.006	39.747	48.323	50.146	39.653	44.565	51.498	54.421	56.159	50.853	42.884	65.962	36.006	48.023

The Depth of Rain in January 1753, O. S. was 2.607 inches.

Place this between p. 284, 285.

XLII.